



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,256	11/02/2001	Kazuaki Watanabe	U 013698-2	8327

7590

05/19/2005

Ladas & Parry
26 West 61 Street
New York, NY 10023

EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

1. The reply brief filed 1/24/05 has been entered and considered. The application has been forwarded to the Board of Patent Appeals and Interferences for decision on the appeal.
2. Responsive to the reply brief under CFR 41.41 filed on 1/24/05, a supplemental Examiner's Answer is set forth below:
3. The following is a response to the new issues set forth in the Reply Brief filed 1/24/05.

With respect to issue I(A) of the Reply Brief, it is noted that in the examiner's answer mailed 11/22/04, the examiner argued that while Sano et al. (U.S. 5,769,930) require the use of alginate in addition to penetrating agent, the combination of JP 11217525 or Anton et al. (U.S. 5,912,280) with Sano et al. remained proper given that the present claims are open to the inclusion of alginate.

In response, appellants argue that whether the claims are open to the inclusion of alginate is irrelevant but rather the issue is whether one of skill in the art would have motivation to combine penetrating agents of Sano et al. with inks as described in JP 11217525 and Anton et al. which do not include alginate.

However, it is the examiner's position that it is significant that the present claims are open to the inclusion of additional ingredients given that Sano et al. teach the use of penetrating agent i.e. combination of acetylene glycol, corresponding to presently claimed formula (1), and triethylene glycol monobutyl ether, and alginate. Further, there is nothing in JP 11217525 or

Art Unit: 1714

Anton et al. that excludes the use of alginate. Rather, JP 11217525 discloses that the ink can include well known additives while Anton et al. disclose that ink contains various types of additives in order to optimize the properties of the ink.

Additionally, while there is no disclosure of alginate in JP 11217525 or Anton et al., Sano et al. do provide motivation for using penetrating agent, i.e. acetylene glycol and triethylene glycol monobutyl ether, in such inks. Specifically, Sano et al. teach that when the ink penetrating capacity is reduced, the coloring properties of the recording image can be enhanced, but that ink having reduced penetration has reduced dryability on the recording medium causing color bleeding and hence deterioration of the image quality. In light of this teaching, it would have been within the skill level of one of ordinary skill in the art to utilize the penetrating agent of Sano et al., i.e. combination of acetylene glycol and triethylene glycol monobutyl ether, in inks, including those described by JP 11217525 or Anton et al., so as to balance the enhancement of the coloring properties and prevention of color bleed.

With respect to issue I(B) set forth in the Reply Brief, appellants argue that there is no motivation to combine JP 11217525 with Sano et al. given that the motivation for utilizing penetrating agent in Sano et al. is to reduce color bleed which has already been disclosed by JP 11217525 as a problem that is solved by the invention.

However, Sano et al. teaching using penetrating agent for more than just preventing color bleed. Sano et al. teach utilizing penetrating agent to provide ink with necessary penetrating capacity. That is, penetrating capacity such that the ink provides recorded images with enhanced color properties while at the same time reducing color bleed and improving image quality. Thus,

there is motivation to combine JP 11217525 (or Anton et al.) with Sano et al. given that Sano et al. teach that the use of penetrating agent that not only provides reduced color bleed but also produces images with improved image quality and enhanced color properties.

With respect to issue I(C) set forth in the Reply Brief, appellants also argue that contrary to examiner's position, the comparative examples of Sano et al. teach less than optimal compositions.

However, it is not the examiner's position that Sano et al. teach the desirability of their comparative compositions. Rather, in response to appellants' argument set forth in the Appeal Brief filed 9/10/04 that the preferred optical density of a print formed with Sano et al. inks is dependent on presence of alginate, the examiner noted that when comparing inks that contain alginate with inks that contain no alginate in Sano et al. (col.17, line 56-col.18, line 3), the optical density may significantly improve (example 4) or may not significantly improve (example 6). Thus, the data show that that the presence of alginate does not necessarily increase optical density. Inks that include alginate do not automatically exhibit significant improvement in optical density given that the presence of alginate may "increase" the optical density by less than 5%. Thus, while neither JP 11217525 nor Anton et al. utilize alginate, it is clear that the presence of alginate does not always significantly improve the optical density.

With respect to issue II(A) set forth in the Reply Brief, in response to examiner's position set forth in the examiner's answer mailed 11/22/04 that the comparative is not successful in overcoming the cited prior art given that Sano et al. already recognize the criticality of using

such penetrating agent, i.e. in order to produce ink with necessary penetrating capacity, appellants argue that it is not clear what is meant by “necessary” penetrating capacity. However, as set forth in col.1, line 50 – col.2, line 5, of Sano et al., it is clear that necessary penetrating capacity is such that the ink provides recorded images with enhanced color properties while at the same time reducing color bleed and improved image quality.

Appellants also argue that even if Sano et al. did disclose the criticality of using presently claimed penetrating agent, such motivation only applies to the ink described in Sano et al. not different inks that contain different ingredients.

However, in light of the teaching in Sano et al. regarding the use of penetrating agent to balance properties of ink, it is the examiner’s position that it would have been within the skill level of, as well as obvious to, one of ordinary skill in the art to utilize penetrating agent of Sano et al. in ink of either JP 11217525 or Anton et al. in order to produce ink with enhanced color properties, reduced color bleed, and improved image quality. Further, the courts have held that “the motivation to combine can arise from the knowledge that the prior art elements will perform their expected functions to achieve their expected results when combined for their common purpose.” *Miles Lab, Inc. v. Shandon Inc.* 997 F.2d at 878, 27 USPQ 2d 1123, 1128 (Fed.Cir. 1993). Based on the teachings of Sano et al., one of ordinary skill in the art would have recognized that the penetrating agent, i.e. combination of acetylene glycol and triethylene glycol monobutyl ether, functions so as to improve color properties and image quality while reducing color bleed in ink compositions and would have expected the penetrating agent to function as such in other inks including those disclosed by JP 11217525 or Anton et al.

With respect to issue II(C) set forth in the Reply Brief, in response to examiner's position that given that Sano et al. disclose the use of penetrating agent identical to that presently claimed, it is clear that such combination would intrinsically improve gloss differential and glossiness, appellants argue that when comparing ink set A, i.e. containing penetrating agent and sulfonyl group containing polymer, with ink set F, i.e. containing penetrating agent and no sulfonyl group containing polymer, as set forth in the declaration filed 11/12/04, it is clear that the use of penetrating agent alone does not provide ink with improved gloss differential or glossiness.

However, it is not examiner's position that use of penetrating agent alone would intrinsically improve gloss differential and glossiness. Rather, as set forth on page 11 of the examiner's answer, it is the examiner's position that given there is motivation to combine either JP 1121725 or Anton et al. with Sano et al. and given that Sano et al. disclose the use of acetylene glycol and triethylene glycol monobutyl ether identical to that presently claimed, it is clear that the use of acetylene glycol and triethylene glycol monobutyl ether in ink of either JP 11217525 or Anton et al., which each disclose the use of sulfonyl group containing polymer, would intrinsically improve gloss differential and gloss as found in ink of the present invention.

For the above reasons, it is believed that the rejections of record should be sustained.

4. It is noted that applicants' IDS filed 3/2/05 has been considered and a initialed and dated copy attached to this response.

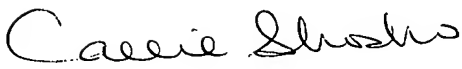
Art Unit: 1714

5. Appellant may file another reply brief in compliance with 37 CFR 41.41 within two months of the date of mailing of this supplemental examiner's answer. Extensions of time under 37 CFR 1.136(a) are not applicable to this two month time period. See 37 CFR 41.43(b)-(c).

6. A Technology Center Director or designee has approved this supplemental examiner's answer by signing below.

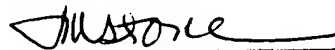
Respectfully submitted,

Callie E. Shosho
Primary Examiner
Art Unit 1714


CS

May 13, 2005

Approved



**Jacqueline M. Stone, Director
Technology Center 1700**

Jacqueline Stone

Ladas & Parry
26 West 61 Street
New York, NY 10023